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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/823,208	03/30/2001	Allan Herrod	SYM-0625-1B	9472

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EXAMINER	
CASIANO, ANGEL L	
ART UNIT	**PAPER NUMBER**
2182	5

DATE MAILED: 10/03/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/823,208	HERROD ET AL.	
	Examiner	Art Unit	
	Angel L. Casiano	2182	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 March 2001* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-96* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-96* is/are rejected.

7)☒ Claim(s) *1,46 and 68* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *30 March 2001* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *4* .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

1. The present Office action is in response to application filed 30 March 2001.

2. Claims 1-96 are pending.

3. The present application is a Division of U.S. application No. 09/107,838 filed 30 June 1998.

Drawings

4. The drawings are objected to because:

- Fig. 3, "104"; should read "data format translator" (see Page 14, lines 10-11)
- Fig. 4, "104"; should read "data format translator" (see Page 15, line 9)
- Fig. 4, "106"; should read "data format translator" (see Page 14, line 18).

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

5. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

6. The disclosure is objected to because of the following informalities:

- Page 11, line 10; should read "... mechanism by which data..."
- Page 15, line 11; sentence is unclear.

Appropriate correction is required.

Claim Objections

7. Claims 1, 46, and 68 are objected to because of the following informalities:

- Regarding claim 1 (see lines 5 and 7), "lease" should read "least"
- As for claim 46, line 10 should read "enablable functions,"
- Claim 68 (see line 2) should read "program" instead of "pro-ram".

Appropriate correction is required.

Claim Rejections - 35 USC § 112

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9. Claims 2-12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 1, (see line 16) the use of "and" is unclear. It is not clear whether the cited line should read "an" or if instead, an element is missing in the claim.

10. Claims 2-12 recite the limitation "hand-held device" in reference to claim 1. Claim 1 discloses instead, a "mobile I/O device". The cited claims are unclear, since a "mobile" I/O device is not necessarily "hand-held". There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

12. Claims 1-2, 4-8, 11-14, 16-19, 22-23, 25-28, 30, 32-35, 38-40, 42-43, 46-48, 50-54, 57, 58, 59-61, 63-66, 69-72, 74-77, 79, 81-85, 89-90 and 92-94 are rejected under 35 U.S.C. 102(e) as being anticipated by Boals et al. [US 6,108,727].

Regarding claim 1, Boals et al. teaches a configurable mobile (inherent, col. 5, lines 32-40) I/O device system (see Abstract, "wireless"; Fig. 1). The cited system includes a configuration management system (see "preconfigured", col. 11, lines 39-47; col. 43, lines 63-65) and a configuration module (see col. 43, lines 63-65) for mobile devices. The system teaches software (see "program", Abstract; col. 80, lines 17-18) modules having application modules as well as operating system. Boals et al. teaches an external communications link (see "wireless link"; col. 5, line 54; col. 80, line 29) to allow two-way communication (see "Abstract", "received", "control"; col. 57, lines 19-22) between the I/O device and the configuration module. Boals et

al. teaches a mobile I/O device (see Abstract; "wireless device") having enablable functions. The I/O device includes a processor (see Fig. 1; col. 6, line 39) and a memory (see Abstract, "storage device"; col. 80, line 21). The cited configuration module employs an initial input (see "command", col. 11, lines 56-57; col. 12, lines 24-25, 32-33, 43-45; Fig. 7) to identify and download (see "transmitting", col. 80, lines 30-32) to the I/O device via the communications links. The cited system teaches enabling a function from a plurality of functions (see Figs. 80-85; col. 4, lines 57-59).

Regarding claim 2, Boals et al. teaches a configurable hand-held I/O device system (inherent, col. 5, lines 32-40) sequencing data requested when received ("received commands", see col. 12, lines 29-38). The cited data sequencing is disclosed as part of the software module in the system (see Fig. 7).

As for claim 4, the cited prior art does not explicitly teach a "synchronization module". However, it does teach synchronizing data, since only one type of data (see col. 3, lines 3-4) is sent at one time to an application. Since the system in the prior art indicates the type of file, from two supported types, the system has synchronizing functionality.

Considering claim 5, the system exposed by Boals et al. does not explicitly teach a "comparator module". Nonetheless, the cited art discloses comparing input formats (see "input manager", col. 12, lines 24-25; Fig. 7) of the inputs coming from the I/O device. The cited art also determines enablable function types (see col. 12, lines 43-46).

As for claim 6, Boals et al. does not explicitly teach a "tag detector". However, the cited reference teaches a field (see "header", col.2, line 67; col. 3, lines 1-5) indicative of the input. In addition, the configurable hand-held I/O device cited by Boals et al. teaches different input and device types (see col. 5, lines 31-40).

As for claim 7, Boals et al. teaches analyzing the type of application to send (see col. 80, lines 27-32, 48-53). The type analysis is in response to an input and further enables a function.

As for claim 8, Boals et al. teaches input (see col. 43, lines 51-54) as data translation (see col.43, lines 44-46).

As for claim 11, Boals et al. teaches an input derived from a user interface (see col. 5, lines 33-35).

In consideration of claim 12, Boals et al. teaches input derived from application (see col. 6, lines 41-50; Fig. 6).

Regarding claim 13, this constitutes the hand-held I/O device for the I/O system disclosed in claim 1. Boals et al. teaches the configurable I/O device system as exposed in claim 1. Accordingly, Boals et al. also teaches the I/O device as part of the system. Therefore, claim 13 is rejected under the same rationale.

As for claims 14, and 16-19 these constitute the hand-held I/O device from the configurable I/O device system rejected in previous claims. The present claims are therefore rejected under the same basis.

Regarding claim 22, Boals et al. teaches a configurable hand-held (inherent, col. 5, lines 32-40) I/O device system (see Abstract, "wireless"; Fig. 1). The cited system includes a configuration module (see col. 43, lines 63-65). The system teaches software (see "program", Abstract; col. 80, lines 17-18) modules having application modules as well as an operating system. Boals et al. teaches an external communications link (see "wireless link"; col. 5, line 54; col. 80, line 29) to allow two-way communication (see "Abstract", "received", "control"; col. 57, lines 19-22) between the I/O device and the configuration module. Boals et al. teaches a hand-held I/O device (see Abstract; "wireless device") having enablable functions. The cited configuration module employs an initial input (see "command", col. 11, lines 56-57; col. 12, lines 24-25, 32-33, 43-45; Fig. 7) to identify and download (see "transmitting", col. 80, lines 30-32) to the I/O device via the communications links. The cited system teaches enabling a function from a plurality of functions (see Figs. 80-85; col. 4, lines 57-59).

As for claims 23 and 25-28, these are a variation of claims 2-12, which are directed to a configuration system. The previous claims are being rejected in the present Office action. Accordingly, these claims are rejected under the same rationale.

Regarding claim 30, this is oriented to the method of configuring and using a configurable hand-held I/O device. Boals et al. teaches the configurable hand-held I/O device system and therefore inherently teaches the method of configuring and using the system. Claim 30 is therefore rejected under the same rationale (see claims 1 and 22).

As for claims 32-35, these include the limitations directed to the method of configuring and using the previously rejected system. Accordingly, the present are rejected under the same rationale.

Regarding claim 38, this is oriented to the method of configuring a configurable hand-held I/O device. Boals et al. teaches the configurable hand-held I/O device system and therefore inherently teaches the method of configuring the system. Claim 38 is therefore rejected under the same rationale (see claims 1 and 22).

As for claim 39, Boals et al. teaches a user of central system (see "host", Figs. 1-7) to configure the hand-held I/O device.

As for claims 40 and 42-43, these include the limitations directed to the method of configuring the previously rejected system. Accordingly, the present claims are rejected under the same rationale.

Regarding claim 46, Boals et al. teaches a configurable portable (inherent, col. 5, lines 32-40) I/O device system (see Abstract, "wireless"; Fig. 1). The cited system includes a configuration management system (see "preconfigured", col. 11, lines 39-47; col. 43, lines 63-65) and a configuration module (see col. 43, lines 63-65) for portable devices. The system teaches software (see "program", Abstract; col. 80, lines 17-18) modules having application modules as well as an operating system. Boals et al. teaches an external communications link (see "wireless link"; col. 5, line 54; col. 80, line 29) to allow two-way communication (see "Abstract", "received", "control"; col. 57, lines 19-22) between the I/O device and the configuration module. Boals et al. teaches a portable I/O device (see Abstract; "wireless device") having enablable functions. The I/O device includes a processor (see Fig. 1; col. 6, line 39) and a memory (see Abstract, "storage device"; col. 80, line 21). The cited configuration module employs an initial input (see "command", col. 11, lines 56-57; col. 12, lines 24-25, 32-33, 43-45; Fig. 7) to identify and download (see "transmitting", col. 80, lines 30-32) to the I/O device via the communications links. The cited system teaches enabling a function from a plurality of functions (see Figs. 80-85; col. 4, lines 57-59).

As for claim 47, the portable I/O device cited by Boals et al. is battery powered (see col. 8, lines 41-42).

As for claims 48, 50-54 and 57-58, these are a variation of claims 2-10, which are directed to a configuration system. The previous claims are being rejected in the present Office action. Accordingly, the present claims are rejected under the same rationale.

Considering claim 57, Boals et al. teaches an initial input derived from a user interface (see col. 5, lines 33-35).

As for claim 58, Boals et al. teaches input derived from an application ("software", see col. 6, lines 41-50; Fig. 6).

Regarding claim 59, this constitutes the portable I/O device for the I/O system disclosed in claim 1. Boals et al. teaches the configurable I/O device system as exposed in claim 1. Accordingly, Boals et al. also teaches the I/O device as part of the system. Therefore, claim 59 is rejected under the same basis.

As for claim 60, the portable I/O device cited by Boals et al. is battery powered (see col. 8, lines 41-42).

In consideration of claims 61 and 63-66, these constitute the portable I/O device from the configurable I/O device system rejected in previous claims. The present claims are therefore rejected under the same basis.

Regarding claim 69, Boals et al. teaches a configurable portable (inherent, col. 5, lines 32-40) I/O device system (see Abstract, "wireless"; Fig. 1). The cited system includes a configuration module (see col. 43, lines 63-65). The system teaches software (see "program", Abstract; col.

80, lines 17-18) modules having application modules as well as an operating system. Boals et al. teaches an external communications link (see "wireless link"; col. 5, line 54; col. 80, line 29) to allow two-way communication (see "Abstract", "received", "control"; col. 57, lines 19-22) between the I/O device and the configuration module. Boals et al. teaches a hand-held I/O device (see Abstract; "wireless device") having enablable functions. The cited configuration module employs an initial input (see "command", col. 11, lines 56-57; col. 12, lines 24-25, 32-33, 43-45; Fig. 7) to identify and download (see "transmitting", col. 80, lines 30-32) to the I/O device via the communications links. The cited system teaches enabling a function from a plurality of functions (see Figs. 80-85; col. 4, lines 57-59).

As for claims 70-72 and 74-77, these are a variation of claims 2-12, which are directed to a configuration system. The previous claims are being rejected in the present Office action. In addition, Boals et al. teaches a battery-powered portable I/O device (see col. 8, lines 41-42). Accordingly, the present claims are rejected under the same rationale.

Regarding claim 79, this is oriented to the method of configuring and using a configurable portable I/O device. Boals et al. teaches the configurable portable I/O device system and therefore inherently teaches the method of configuring and using the I/O device. Claim 79 is therefore rejected under the same rationale (see claims 1, 22, and 30).

As for claims 81-85, these include the limitations directed to the method of configuring and using the previously rejected system and device. Accordingly, these claims are rejected under the same rationale.

Regarding claim 88, this is oriented to the method of configuring a configurable portable I/O device. Boals et al. teaches the configurable portable I/O device system and therefore inherently teaches the method of configuring the system and device. Claim 88 is therefore rejected under the same rationale (see claims 1, 22).

As for claim 89, Boals et al. teaches a user of central system (see "host", Figs. 1-7) to configure the portable I/O device.

As for claims 90 and 92-94, these include the limitations directed to the method of configuring the previously rejected system and device. Accordingly, the present claims are rejected under the same rationale.

Claim Rejections - 35 USC § 103

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

14. Claims 3, 9-10, 15, 20-21, 24, 29, 31, 36-37, 41, 44-45, 49, 55-56, 62, 67-68, 73, 78, 80, 86-87, 91 and 95-96 are rejected under 35 U.S.C. 103(a) as being unpatentable over Boals et al. [US 6,108,727].

As for claim 3, Boals et al. does not explicitly teach a configurable hand-held I/O device system having a filter module. However, it does teach filtering data, since "predetermined" data is transmitted, received and processed (see col. 80, lines 29-30). It would have been obvious to one of ordinary skill in the art at the time of the invention that the cited system would have been capable of eliminating data which would not be predetermined and that therefore did not meet application module's requirements.

As for claims 9 and 10, Boals et al. does not explicitly disclose the hand-held I/O device as having a field programmable gate array coupled to the limited capacity system. In addition, the operating system in Boals et al. does not include a program module to program and configure a FPGA (field programmable gate array). However, it is well known in the art that a FPGA (Field Programmable Gate Array) refers to a gate array where the logic can be programmed after its construction. It should be noted that Boals et al. teaches programmable logic, as part of the hand-held I/O device (see Fig. 4; col. 21, lines 40-41, 48-52). Boals et al. teaches the use of programmable pins (logic) in order to enhance control flexibility (see col. 21, lines 42). As it is well known in the art, the architecture of FPGAs provides enhanced performance and efficiency.

Therefore, one of ordinary skill in the art would have been motivated to incorporate at least one FPGA (with corresponding programming and configuration) in order to provide enhanced performance, efficiency and flexibility in controlling features for the I/O device.

As for claims 15, and 20-21, these constitute the hand-held I/O device from the configurable I/O device system rejected in previous claims. The present claims are therefore rejected under the same basis.

In consideration of claims 24 and 29, these are a variation of claims 2-12, which are directed to a configuration system. The previous claims are being rejected in the present Office action. Accordingly, these claims are rejected under the same rationale.

As for claims 31 and 36-37, these include the limitations directed to the method of configuring and using the previously rejected system. Accordingly, the present are rejected under the same rationale.

As for claims 41 and 44-45, these include the limitations directed to the method of configuring the previously rejected system. Accordingly, the present claims are rejected under the same rationale.

Considering claims 49 and 55-56, these are a variation of claims 2-10, which are directed to a configuration system. The previous claims are being rejected in the present Office action. Accordingly, the present claims are rejected under the same rationale.

As for claims 62 and 67-68, these constitute the portable I/O device from the configurable I/O device system rejected in previous claims. The present claims are therefore rejected under the same basis.

Considering claims 73 and 78, these are a variation of claims 2-12, which are directed to a configuration system. The previous claims are being rejected in the present Office action. Accordingly, the present claims are rejected under the same rationale.

As for claims 80 and 86-87, these include the limitations directed to the method of configuring and using the previously rejected system and device. Accordingly, these claims are rejected under the same rationale.

In consideration of claims 91 and 95-96, these include the limitations directed to the method of configuring the previously rejected system and device. Accordingly, the present claims are rejected under the same rationale.

Conclusion

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

- Anand et al. [US 6,141,705] teaches system for querying a peripheral device to determine its processing capabilities.
- Richman et al. [US 6,003,097] discloses system for automatically configuring a network adapter.
- Lichtman et al. [US 5,819,107] teaches method for managing the assignment of device drivers in a computer system.
- Lichtman et al. [US 5,809,329] discloses system for managing the configuration of a computer system.
- Shapiro et al. [US 5,797,031] teaches method and apparatus for peripheral device control by clients in plural memory addressing modes.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Angel L. Casiano whose telephone number is 703-305-8301. The examiner can normally be reached on 8:00-5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey Gaffin can be reached on 703-308-3301. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

alc
29 September 2003.

JEFFREY GAFFIN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100